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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/695,953	10/30/2003	Sean Donald Robert Code	3459-Z	6275

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Law Office of Jim Zegeer
Suite 108
801 North Pitt Street
Alexandria, VA 22314

EXAMINER

ANYA, CHARLES E

ART UNIT	PAPER NUMBER
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2194

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/29/2006	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/695,953

Applicant(s)

CODE

Examiner

Charles E. Anya

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3/ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,5,7,8,10,12 and 14 is/are rejected.
- 7) ☐ Claim(s) 3,6,9,11,13 and 15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 1/11/06.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-15 are pending in this application.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. **Claims 1,2,4,5,7 and 8 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Pat. No. 4,980,824 to Tulpule et al.**

4. As to claim 1, Tulpule teaches a method of scheduling a first task within a computing device, comprising the steps of: a. maintaining a work queue of a plurality of waiting tasks awaiting scheduling (Dependency Table 152 Col. 11 Ln. 9 – 19); b. attempting to locate at least one selected task from within the work queue which is capable of being executed simultaneously with the first task (“...determine...” Col. 2 Ln. 55 – 67, “...locate...” Col. 12 Ln. 29 – 39, Col. 14 Ln. 20 – 29), and c. if at least one selected task is located, at least one selected task with the first task to form a combined task (“...selected...merging of critical, interdependent task...” Col. 5 Ln. 29 – 35,

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"...locate...all dependent tasks are processed in this manner **before existing** from this task..." Col. 14 Ln. 20 – 34) and, scheduling the combined task ("...placed on the appropriate execution queue..." Col. 14 Ln. 20 – 34).

5. As to claim 2, Tulpule teaches the method of claim 1 wherein each task has an associated priority, and wherein the method comprises the further step of selecting as the first task a waiting task for which no other waiting task has a higher priority ("...priority..." Col. 2 Ln. 12 – 15).

6. As to claims 4 and 7, see the rejection of claim 1 above.

7. As to claims 5 and 8, see the rejection of claim 2 above.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. **Claims 10,12 and 14 are rejected under 35 U.S.C. 103(a) as being obvious over U.S. Pat. No. 4,980,824 to Tulpule et al. in view of U.S. Pat. No. 6,948,172 B1 to D'Souza et al.**

8. As to claim 10, Tulpule teaches a method of scheduling a first task within a computing device, comprising the steps of: a. maintaining a work queue of a plurality of waiting tasks awaiting scheduling (Dependency Table 152 Col. 11 Ln. 9 – 19); d. attempting to locate at least one selected task from within the work queue which is capable of being executed simultaneously with the first task (“...determine...” Col. 2 Ln. 55 – 67, “...locate...” Col. 12 Ln. 29 – 39, Col. 14 Ln. 20 – 29); and e. if at least one selected task is located, combining the at least one selected task with the first task to form a combined task (“...selected...merging of critical, interdependent task...” Col. 5 Ln. 29 – 35, “...locate...all dependent tasks are processed in this manner **before existing** from this task...” Col. 14 Ln. 20 – 34), and scheduling the combined task (“...placed on the appropriate execution queue...” Col. 14 Ln. 20 – 34).

Tulpule is silent with reference to determining whether the computing device has sufficient resources to execute the first task; and if the computing device has sufficient resources to execute the first task.

D'Souza teaches determining whether the computing device has sufficient resources to execute the first task; and if the computing device has sufficient resources to execute the first task (...dynamically grow...” Col. 7 Ln. 24 – 27).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Tulpule with the teaching of D'Souza because the teaching of D'Souza would improve the system of Tulpule by allowing the operating system to schedule tasks that use same resources together, thereby

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efficiently and optimally using resources and as such avoiding resource sharing problems (D'Souza Col. 6 Ln. 1 – 6).

9. As to claims 12 and 14, see the rejection of claim 10 above.

Allowable Subject Matter

Claims 3,6,9,11,13 and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including **all of the limitations of their respective base claims and any intervening claims.**

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles E. Anya whose telephone number is (571) 272-3757. The examiner can normally be reached on M-F (8:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Thomson can be reached on (571) 272-3718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Charles E Anya
Examiner
Art Unit 2194

cea.



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